

Appl. No. 09/752,507
Amdt. Dated Jan. 21, 2004
Reply to Office Action of Dec. 15, 2003

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (previously amended): In an electronic device which has a housing and a cover movable between a closed position and an open position with respect to the housing, an unfolding apparatus for automatically opening the cover with respect to the housing, the unfolding apparatus comprising:

a first means for creating a first magnetic field, the first means being adapted to be provided in the housing of the electronic device;

a second means for creating a second magnetic field, the second means being adapted to be provided in the cover of the electronic device and be opposite to the first magnetic field when the cover is in the closed position; and

a controller for electrically connecting the first means with a power source of the electronic device, the controller being adapted to be provided in at least one of the housing and the cover; wherein

when the first means is electrically activated by the power source, a magnetic field is created around the first means, and magnetic field repels the second means, whereby the cover is moved from the closed position to the open position.

Claim 2 (cancelled)

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Claim 3 (original): The unfolding apparatus in accordance with claim 1, wherein the first means for creating the first magnetic field comprises an electromagnetic coil.

Claim 4 (original): The unfolding apparatus in accordance with claim 1, wherein the second means for creating the second magnetic field comprises a magnet.

Claim 5 (previously amended): The unfolding apparatus in accordance with claim 1, wherein the controller comprises an operator, a movable contact abutting against a lower face of the operator, and a stationary contact, and both the movable contact and the stationary contact are respectively connected with circuitry between the first means and the power source.

Claim 6 (previously amended): A portable communication device comprising:
a housing having a keypad;
a cover attached to the housing by a hinge, the cover being movable between a closed position and an open position with respect to the housing;
a first means for creating a first magnetic field, the first means being adapted to be provided in the housing;
a second means for creating a second magnetic field, the second means being adapted to be provided in the cover and be opposite to the first magnetic field when the cover is in the closed position; and
a controller having a pair of first movable and first stationary contacts respectively and a pair of second movable and second stationary contacts respectively, the pair of first contacts being connected to a power source of the device and thereby controlling at least one of the first and second means, the pair

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of second contacts serving as contacts of an answering switch of the communication device, and the controller being provided in at least one of the housing and the cover; wherein

when the movable contacts are pressed by the controller to contact the stationary contacts, a magnetic field is created around the first means to repel the second means, and the answering switch is activated, whereby the cover is moved from the closed position to the open position for answering by a user.

Claim 7 (cancelled)

Claim 8 (original): The portable communication device in accordance with claim 6, wherein the first means for creating the first magnetic field comprises an electromagnetic coil.

Claim 9 (original): The portable communication device in accordance with claim 6, wherein the second means for creating the second magnetic field comprises a magnet.

Claim 10 (previously amended): The portable communication device in accordance with claim 6, wherein the controller comprises an operator, a movable contact abutting against a lower face of the operator, and a stationary contact, and both the movable contact and the stationary contact are connected with circuitry between the first means and the power source, respectively.

Claim 11 (previously amended): An electronic device comprising:
a housing having a keypad;
a cover attached to the housing by a hinge;

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a first means for creating a first magnetic field, the first means being adapted to be provided in the housing;

a second means for creating a second magnetic field, the second means being adapted to be provided in the cover and be opposite to the first magnetic field when the cover is in a closed position; and

a controller for creating at least one of the first and second magnetic fields to thereby control magnetic force between the first and second magnetic fields, the controller being provided in at least one of the housing and the cover; wherein

when the first means is electrically activated by a power source of the electronic device under the action of the controller, a magnetic field is created to repel the second means away from the closed position.

Claim 12 (cancelled)

Claim 13 (original): The electronic device in accordance with claim 11, wherein the first means for creating the first magnetic field comprises an electromagnetic coil, and the second means for creating the second magnetic field comprises a magnet.

Claim 14 (previously amended): The electronic device in accordance with claim 11, wherein the controller comprises an operator, a movable contact abutting against a lower face of the operator, and a stationary contact, and both the movable contact and the stationary contact are connected with circuitry between the first means and the power source.

Claim 15 (cancelled)

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Claim 16 (previously amended): A cellular phone comprising:
a housing and a cover rotatably attached to the housing;
a controller positioned in the housing and activated, directly or indirectly, by
a button; and
a device mounted on the cover; wherein
said controller activates circuits to create a magnetic field to repel said device,
which in turn rotatably moves the cover from a closed position to an open position.

Claim 17 (original): The cellular phone in accordance with claim 16, wherein
said device is a permanent magnet.

Claim 18 (original): The cellular phone in accordance with claim 16, wherein
said magnetic field is created by an electromagnet.

Claim 19 (previously presented) The cellular phone in accordance with claim
16, wherein no spring force is provided to encounter or be encountered by said
magnetic field.